

AMENDMENT & RESPONSE UNDER 37 C.F.R. § 1.116 - EXPEDITED PROCEDURE
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Title: ARTIFICIAL ANTIBODY POLYPEPTIDES

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CLEAN VERSION OF CLAIMS

1. A fibronectin type III (Fn3) polypeptide monobody comprising at least two Fn3 β -strand domain sequences with a loop region sequence linked between each Fn3 β -strand domain sequence,
wherein at least one monobody loop region sequence varies as compared to the wild-type loop region sequence by deletion of at least two amino acids in the loop region sequence, insertion of at least two to 25 amino acids, or replacement of at least two amino acids in the loop region sequence, and
wherein the polypeptide monobody binds to a specific binding partner (SBP) to form a polypeptide:SBP complex.
2. The monobody of claim 1, wherein at least one loop region binds to a specific binding partner (SBP) to form a polypeptide:SBP complex having a dissociation constant of less than 10^{-6} moles/liter.
4. The monobody of claim 1, wherein a loop region comprises amino acid residues:
- i) from 15 to 16 inclusive in an AB loop;
 - ii) from 22 to 30 inclusive in a BC loop;
 - iii) from 39 to 45 inclusive in a CD loop;
 - iv) from 51 to 55 inclusive in a DE loop;
 - v) from 60 to 66 inclusive in an EF loop; or
 - vi) from 76 to 87 inclusive in an FG loop.
5. The monobody of claim 1, wherein the monobody loop region sequence varies from the wild-type Fn3 loop region sequence by the deletion or replacement of at least two amino acids in the loop region.
6. The monobody of claim 1, wherein the monobody loop region sequence varies from the wild-type Fn3 loop region sequence by the insertion of from 3 to 25 amino acids.